

educational public services which he rendered and the scientific societies which bore his name on their rolls. "The wonder is that he was excellent in so many directions, surpassing those who had given their lives to but one of his many interests."

He was twice married and is survived by six sons and four daughters.

P. P. C.

(In response to a request for biographical data from the Academy of Natural Sciences of Philadelphia, of which he was a correspondent, Lord Avebury once sent a copy of *The South American Journal*, London, for February 24, 1900, containing a sketch of his life. From this sketch we have obtained many particulars.)

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## On the *Criorhina intersistens* Walker and an Allied Species (Dipt.).

By CHARLES W. JOHNSON, Boston, Mass.

For a number of years there has been considerable confusion regarding the standing of *Xylota badia* and *Eristalis intersistens* Walker. In the collections under my charge and probably in the collections of others this confusion is due to the presence of two species, the females of which closely resemble each other.

That Walker's descriptions refer to one and the same species is very evident, notwithstanding the absence of the facial stripe in the description of *X. badia*.

Female: Body brassy, head covered with pale tawny down \* \* chest thickly clothed with long, pale tawny hairs; abdomen black, clothed with short hoary hairs, yellow on each side of base and thence in two narrow stripes beyond the middle legs pitchy; thighs pale yellow towards the base, knees and extremities of shanks yellow, feet tawny, hind feet pitchy, tawny at the base \* \* Length of the body 4 lines. New York. (List Dipt. Brit. Mus. pt. III, p. 559).

The description of *E. intersistens* (sex not given) is essentially as follows:

Body black, head clothed with whitish hairs and down, pale yellow with three black stripes in front \* \* chest and breast brassy green clothed with tawny hairs; abdomen elliptical \* \* thinly clothed with tawny hairs; sides irregularly tawny for more than half the length

from the base; legs tawny, hips black, a broad black band across each thigh and shank; feet pitchy, tawny at base. Length  $4\frac{1}{2}$ -5 lines. Trenton Falls, N. Y. (List Dipt. Brit. Mus. pt. III, p. 615).

The three black stripes evidently refer to the facial stripe and cheeks.

It seems therefore evident that *badia*, on page 559, should be used instead of *intersistens* on page 615. In regard to the genus, as I pointed out in Psyche (Vol. XVIII, p. 73, 1911) *Blera* Billberg 1820 (Type *Musca fallax* Linné), antedates *Criorhina* Meigen, 1822 (Type *Syrphus asilicus* Fallen). At the time, I advanced this name chiefly to offset *Penthesilia* Meigen, 1800 (no species mentioned). On the other hand, recognizing *Criorhina* to include only the large pilose species as is done by European authors and by Williston in his synopsis of the North American Syrphidae, then *Cynorhina* Will. becomes a synonym of *Blera*. In any event I cannot see how we can ignore *Blera* as the author's intention is very clear.

***Blera confusa* sp. n.**

*Male*. Face yellow covered with yellowish pollen, vertical triangle, antennal process, facial stripe and cheeks, shining black; occiput black, margins grayish pollinose, with long whitish hairs; proboscis and the first and second joints of the antennae black, the third joint and the arista brown. Thorax greenish black, shining, with long dull yellowish pile, humeri grayish pollinose. Abdomen black with a bluish reflection in certain lights; sides of the second and third segments with large yellow triangles, those on the second larger and less regular than those on the third; fourth segment with small yellow triangles at the anterior angles; pile yellowish except on the black areas of the second and third segments where it is black; venter with the second and third segments yellow. Halteres yellow. Legs black, tops of the femora, bases and tips of all the tibiae, and the first three joints of the anterior and middle tarsi yellow. Wings brownish hyaline, veins dark brown. Length 10 mm.

*Female*. Similar to the male, except that the yellow triangles on the third abdominal segment are much smaller and scarcely dorsal beyond the posterior margin of the one on the second segment, third with only a yellow spot at the anterior angle, pile dull yellow or gray mixed with black dorsally near the posterior margins of the segments, venter with only the second segment yellow. Front black, shining, slightly covered with a grayish pollen and whitish hairs. Length 11 mm.

Eleven specimens. Holotype and allotype, Capens, Moose-

head Lake, Maine, July 14 and 19, 1907 (C. W. Johnson), in the collection of the Boston Society of Natural History.

Paratypes, Princeton, Maine, July 12, 1909; Franconia, New Hampshire (Mrs. A. T. Slosson); White Mountains, near Glen House (Dr. Geo. Dimmock); Ricketts, North Mt., Pennsylvania, June 8, 1898 (C. W. J.).

Readily separated from *B. badia* by its less prominent antennal process, the black middle and posterior femora, and the large yellow triangular markings on the third abdominal segment, especially in the male. It is a species belonging to the Canadian zone, while *B. badia* practically belongs to the transition zone and is only occasionally taken in areas frequented by a few species found in both zones.

Thirteen specimens of *B. badia* show the following distribution: Northeast Harbor, Maine, July 19, 1909 (Dr. C. S. Minot); Franconia, New Hampshire (Mrs. Slosson); Manchester, Vermont, June 9; Auburndale, June 15, North Adams, June 14, and Mt. Everett, Massachusetts, June 28; Darien, Conn., June 10; Philadelphia, June 30; Edge Hill, June 5, and North Mt., Pennsylvania, June 8 (C. W. J.).

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## The First Fossil Anthomyid Fly from Florissant (Dipt.).

By T. D. A. COCKERELL, Boulder, Colorado.

*Anthomyia* (sens. lat.) *atavella* n. sp.

Length nearly 6 mm., of wing 4.25; robust, bristly; the head, thorax and legs were apparently black; the abdomen as preserved is warm reddish, with the sutures pallid, it was probably brown; wings perfectly clear, veins dark. Top of head with large bristles directed forward, as in *Lispa uliginosa*; palpi about 480  $\mu$  long and 80 broad near end, feebly clavate, with bristles not longer than diameter of palpus (these palpi are essentially as in *Hyetodesia leucorum*); thorax elevated, scutellum prominent, dorsal thoracic macrochaetae very large, one near base of wing over 640  $\mu$  long, the long bristles and short hairs apparently practically as in *Hyetodesia*, but the precise arrangement cannot be made out; four very large macrochaetae can be seen in the longitudinal subdorsal row, before the scutellum; abdomen with thinly scattered bristles, the largest in a row near the hind margins of the segments, these being about 350  $\mu$  long, the arrangement very nearly as in the Muscid *Myiospila meditabunda*; legs bristly, the hind